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BEE CULTURE INVESTIGATIONS

James I. Hambleton, Apiculturist, In Charge

Doctor Heinrich Prell, of Germany, visited the Bee Culture Laboratory in December.

Jas. I. Hambleton and W. J. Nolan attended the meetings of the American Association for the Advancement of Science, at Philadelphia. Mr. Hambleton presided at the meeting of the Apicultural Section of the American Association of Economic Entomologists. At one of the meetings of this Section L. R. Watson, formerly connected with the Bee Culture Laboratory, gave a successful demonstration of his method by which the fertilization of queenbees may be accomplished under artificial conditions. Prof. L. M. Bertholf, of Western Maryland College, who for the last few summers has been at the Bee Culture Laboratory, studying the reaction of the honeybee to light, also gave a demonstration of his work before the same Section, as well as before the Society of Experimental Zoologists.

In December A. P. Sturtevant, in charge of the Intermountain Bee Culture Field Laboratory, attended beekeepers' meetings at Thermopolis, Wyo., Billings and Bozeman, Mont.; Boise, Idaho; Salt Lake City, Utah; and Grand Junction and Fort Collins, Colo. J. E. Eckert, who is also connected with the Intermountain Bee Culture Field Station, attended several of these meetings.

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JAPANESE BEETLE INVESTIGATIONS

Loren B. Smith, Entomologist, in Charge

Many scientists who attended the meetings of the American Association for the Advancement of Science, held in Philadelphia the last week in December, visited the Japanese Beetle Laboratory as an incident of their stay in this section of the country. Included among those who stopped at the station were A. G. Dustan, Ottawa, Canada; C. J. Drake, Ames, Iowa; Phillip Garman, New Haven Conn.; J. S. Hauser, C. R. Cutwright, G. A. Flinger, and L. L. Huber, Wooster, Ohio; H. F. Dietz, Indianapolis, Ind.; J. M. Robinson, Auburn, Ala.; C. A. Eddy, Clemson College, S. C.; F. A. Fenton, Florence, S. C.; J. J. Davis, La Fayette, Ind.; B. A. Porter, Vincennes, Ind.; E. W. Stafford, A. & M. College Miss.; A. A. Granovsky and L. M. Thatcher, University of Wisconsin; and F. L. Gambrell, Geneva, N. Y.

TAXONOMIC INVESTIGATIONS

S. A. Rohwer, Entomologist, in Charge

Dr. J. M. Aldrich, Dr. H. E. Ewing, A. N. Caudell, Harold Morrison, and S. A. Rohwer attended the Philadelphia meetings of the American Association for the Advancement of Science. Dr. Aldrich presented a paper on "Collecting Diptera in Guatemala," Dr. Ewing one on "The Hippoboscid Fly, Ornithomyia avicularia Linnaeus, as a Carrier of Mallophaga," and Mr. Rohwer took part in the symposium on needed lines of investigation in American Entomology, discussing the taxonomic work.

Dr. H. W. Allen, of the Japanese Beetle Laboratory, Riverton, N. J., worked at the Division of Insects on December 2 and 3, examining material of Tiphia in the National Collection, consulting about plans for working up the material received by the Japanese Beetle Laboratory, and making arrangements to secure literature.

Among the hemipterists recently visiting the Division of Insects were Dr. Carl J. Drake, of Iowa State College, who on December 24, 25, and 26 worked on the Hemiptera collections; Dr. H. B. Hungerford, of the University of Kansas, who spent December 27 examining the collections of aquatic Heteroptera; and Dr. D. M. DeLong, Columbus, Ohio, who devoted the same day to studying types of Empoasca.

Prof. Heinrich Prell, of the Forestry School in Tharandt, Saxony, Germany, who is spending some time in the United States as a traveling fellow in entomology, was for a number of days between December 13 and 23 in the Division of Insects, where he consulted with various specialists, arranged to obtain material of the genus Dendroctonus, and studied methods of housing collections. He was accompanied by Mr. Barber to Plummer's Island, where he obtained specimens of the larva of Micromalthus debilis Lec.

Dr. Kamal, of Egypt, visited the Section of Insects on December 24, making the acquaintance of the various specialists and studying methods of handling collections.

H. F. Barnes, who has a traveling fellowship from the Southeast Agricultural College, Wye, England, and is spending the winter studying gall midges with Dr. E. P. Felt, at Albany, N. Y., visited the Division of Insects for several days in Christmas week.

Dr. W. A. Riley, of the University of Minnesota, visited the Section of Insects on December 14 and 15.

G. B. Merrill, of Gainesville, Fla., spent the morning of December 24 studying Coccidae with Mr. Morrison, and will be here three days, beginning January 3.

G. M. Greene, of Harrisburg, Pa., was a visitor to the Division of Insects on December 31.

Mrs. C. V. Riley has donated to the library of the National Museum the scrap-books of economic entomology which were kept by her husband, the late C. V. Riley, and which cover a period of his activity from 1865 to 1894. These volumes, about 100 in number, are of about the size of the Yearbooks of the Department of Agriculture. They contain many articles of extreme historical interest, notes and papers published by Riley, and in some cases represent the only available copies of the short articles which appeared in various popular magazines and newspapers. In giving these scrap-books to the Museum, Mrs. Riley wished to have them housed in the same place as the Riley collection of insects. This donation is of great importance, as it will make available much information otherwise very difficult to obtain.

Dr. E. A. Chapin left Washington early in December for a month's vacation. He was for two weeks in the American Museum of Natural History, New York, examining species of *Ptilodactyla* from Central America and the West Indies, and discussing with the men there the supplement to the Leng check list. He also spent a day with Charles Schaeffer at the Brooklyn Museum, examining the Coleoptera collection.

In December the larval collections of Coleoptera received two unusually acceptable additions. One was a larva of the halticine beetle *Sphaeroderma testaceum* Fabr., which was collected and given to the Museum by Dr. E. Rosenberg, of Copenhagen, Denmark. The species mines the leaves of *Carduus crispus*. This genus of Halticinae has never before been known in the larval stage. There is one American species of this genus, *S. opima* Leconte, the larva of which is unknown, and which would be a very useful and valuable addition to our larval collection. The second interesting addition consists of the larva, pupa, and prepupal cells of the clerid *Callimerus arcufer* Chapin, which was collected and reared by R. W. Paine, from Suva, Fiji, where it has evidently been introduced, as the species was originally described from material from the Straits Settlements. This clerid larva is unusually interesting, as it belongs to a group in which no larvae have previously been known, and represents a genus the taxonomic position of which has been in dispute. Dr. Boving is planning to prepare a description of this larva, and will set forth the characters which show its relation to other clerid larvae.

Dr. Wm. A. Hoffman, of the School of Tropical Medicine at San Juan, Porto Rico, spent a few days in the Division of Insects studying the biting gnats of the genus *Culicoides* and related forms.

Graham Fairchild, of Harvard University, visited the Division of Insects during Christmas week and worked on the Lepidoptera collections.

TRUCK-CROP INSECT INVESTIGATIONS

J. E. Graf, Senior Entomologist, in Charge

B. L. Boyden, Tampa, Fla., R. E. Campbell, Alhambra, Calif., J. E. Dudley, Jr., Madison, Wis., and N. F. Howard, Columbus, Ohio, were called to Washington the last week in December to consider plans for reviewing some of the field projects of this Division. Among specific work undertaken was the drawing up of outlines for the annual reports of field stations, so that this work would all be considered from the same standpoint. Several forms for reporting on insecticide experiments were also completed. Further work considered dealt with a closer coordination of the activities of the various field stations, especially those relating to tests of insecticides. It is hoped by this means to make available for publication at an early date some of the minor projects which are receiving consideration from several laboratories.

J. E. Graf, W. H. White, C. H. Popenoe, B. L. Boyden, R. E. Campbell, J. E. Dudley, Jr., and N. F. Howard attended some of the sessions of the American Association of Economic Entomologists, held at Philadelphia the last week of December.

J. R. Douglass reports that Governor-elect R. C. Dillon, of New Mexico; visited the Estancia, N. M., bean beetle laboratory on December 11.

Dr. Olive Swezy has been appointed agent in cooperation with the California Experiment Station at Berkeley, Calif., to work with Dr. H. H. Severin in studying the nature of the virus which causes curly-top of sugar beets, and is transmitted to the beets by the sugar-beet leafhopper.

J. N. Tenhet returned December 31, to Clarksville, Tenn., from his temporary assignment with the Federal Horticultural Board at Houston, Tex.

COTTON INSECT INVESTIGATIONS

INVESTIGATIONS OF INSECTS AFFECTING THE HEALTH OF MAN AND DOMESTIC ANIMALS

J. L. Webb, Associate Entomologist, Acting in Charge

B. R. Coad and Elmer Johnson left Tallulah, La., on December 30, for an extended trip to Arizona, where they will study the Thurberia weevil situation.

Weevil infestations have been found in cotton of the 1926 crop at or near the following points in Arizona: Sahuarita, Continental, Tubac, Nogales, Bowie, San Simon, Willcox, Light, McNeal, and Elfrida.

D. F. A. Fenton, of the Florence, S. C., laboratory, was in Washington the last few days of December.

FOREST INSECT INVESTIGATIONS

F. C. Craighead, Senior Entomologist, in Charge

On December 1 James A. Beal, in charge of forest insect work at the Bent Creek Laboratory, Pisgah National Forest, near Asheville, N. C., arrived in Washington to confer with various members of the branch on certain aspects of the southern pine beetle situation in the South.

Dr. T. E. Snyder presented a paper at the scientific meetings in Philadelphia, embodying a plea for the modification of building regulations with a view to preventing injury by termites.

H. J. MacAloney, of this office, stationed at Amherst, Mass., and working in New England on the white pine weevil, attended the Philadelphia meetings to represent the Division of Forest Insect Investigations at a conference on the white pine weevil, held by the forest entomologists and foresters.

Dr. J. M. Swaine, Associate Dominion Entomologist, and in charge of forest insect infestations in the Dominion of Canada, and Ralph Hopping, of the Forest Insect Branch of the Dominion of Canada, arrived in Washington near the end of December to spend about a week studying cerambycid types in the Casey collection and conferring with the forest insect specialists.

Dr. S. A. Graham, Professor of Forest Entomology in the University of Minnesota, and agent of this Division in charge of forest insect work in the Lake States, and of investigations of the pine tip-moth at Halsey, Nebr., came to Washington in the last week of December for a conference of several days on forest insect work.

CEREAL AND FORAGE INSECT INVESTIGATIONS

W. H. Larrimer, Senior Entomologist, in Charge

Recent visitors at the Arlington, Mass., Laboratory included Dr. Mohammed Kamal, of the Ministry of Agriculture, Cairo, Egypt, and S. F. Potts and Dwight F. Barnes, of the Gipsy Moth Laboratory.

Walter Carter, in charge of investigations on the sugar beet leaf-hopper, located at Toppenish, Wash., visited the Alfalfa Weevil Laboratory at Salt Lake City on December 15.

Geo. I. Reeves, in charge of the Salt Lake City Laboratory, spent December 13 and 14 at Ames, Iowa, in consultation with Prof. Carl J. Drake, of the Iowa State College of Agriculture, regarding the spread of the alfalfa weevil, and addressed the faculty and advanced students of the Department of Zoology at that college.

STORED-PRODUCT INSECT INVESTIGATIONS

E. A. Back, Senior Entomologist, in Charge

During October Dr. Back visited California to consult with Bureau specialists working with stored-product insects. On the way out and while he was on the Coast he inspected some work of private firms, of interest to the Bureau. Of especial interest were the heat and fumigating rooms constructed for the treatment of furniture, and the work of firms actively engaged in moth-proofing fabrics.

J. C. Hamlin and W. D. Reed, of Fresno, Calif., in the early part of November fumigated more than half a million dollars' worth of dried fruits with sulphur dioxide, carbon disulphide, and hydrocyanic-acid gas. These were practical fumigations on a large scale, and gave valuable results.

S. E. McClendon, Thomasville, Ga., reports that the fall examinations of corn grown and housed on St. Simons Island, Ga., showed that no rice weevils were present. This fact is of interest, because when the control experiments were started on this island about four years ago, the rice weevil was a very serious and widespread pest.

Dr. Back was present in Kansas City on November 5 to attend a conference at which were represented members of the Southwestern Millers' Association and certain marine insurance underwriters.

A. O. Larson reports that the November examinations made in the laboratory by C. K. Fisher, and in the field and warehouses by himself, indicate a very heavy percentage of infested lots of beans grown in California this year. Mr. Larson writes, "Our investigations at the farms, both in the North and the South, emphasize the necessity for a concerted effort to eradicate bean weevils. It appears that the marketing conditions during the last winter and spring had much to do with the abundance or lack of weevils in the new crop." It also appears that while weevils are more generally present than in previous years in certain sections where they were bad last year, they were almost completely exterminated this year by cooperative efforts directed by Mr. Larson.

Perez Simmons reports that recently he and G. W. Ellington discovered that the Angoumois grain moth larvae sometimes leave the grain and spin cocoons in the ground. This is a new fact that appears never before to have been recorded.

Early in December, at the request of the Chamber of Commerce of Galveston, Tex., Dr. R. T. Cotton visited the ports of Galveston and Houston to inspect docks, warehouses, and steamships, concerned in the exporting of flour. Severe losses/sustained by flour shippers during the last season, and every effort is being made to locate the source of infestation and remedy the trouble.

It is with pleasure that the Division of Stored-Product Insects announces that the Dried Fruit Association of California has promised another thousand-dollar contribution toward the dried fruit insect work in California.

At the request of the Board of Commissioners of the Port of New Orleans and of the New Orleans Association of Commerce, Dr. Back spent December 7 to 11 in New Orleans where, in cooperation with W. T. Dillard, of the Federal Horticultural Board, and Mr. Foster, of the Louisiana State Department of Agriculture; a survey was made of the condition of docks and ships used in the exporting of flour.

Among the recent callers at this office are, E. W. Thornton, Chief Chemist of the R. B. Davis Company, of Hoboken; E. H. Lane, President of the Lane Cedar Chest Company, of Virginia; H. W. Melville, of the Western Marine Department of the Insurance Company of North America; Robert Hall, of the Federal Storage Company; J. V. Lane, of F. H. Price & Co., New York City; J. D. Keegan, Marine Secretary, Providence-Washington Insurance Company, of Providence, R. I.; R. C. Jordan, Special Agent, Export Grain & Flour Traffic of the Illinois Central System, Chicago; Alberto Graf Marian, Agricultural Engineer, of Chile, and B. R. Beal, Special Representative of the Claims and Prevention Department of the Rock Island R. R.

DECIDUOUS-FRUIT INSECT INVESTIGATIONS

A. L. Quaintance, Associate Chief of Bureau, in Charge

On November 26 and 27 the State Plant Board of Mississippi, together with entomological workers of that State, held a meeting at A. & M. College, Miss., at which Oliver I. Snapp gave an address on the results of recent experiments on the control of peach insects in the South.

Observations in the past few months have shown a very heavy mortality of the San Jose scale in the Georgia peach belt; heavier than at any other time in the last five years. It is believed to be due to twice-stabbed ladybird beetles. In many cases the scale coverings, with no bodies under them, were found clinging to the trees. The question has arisen whether the unusual abundance of ladybird beetles in 1926 is in any way correlated with the general use of lubricating-oil emulsion for the last several years.

Dr. P. M. Gilmer, in charge of codling moth investigations at Wichita, Kans., came to Washington about the middle of December to confer at length regarding his field work, and to return in January.

A. J. Ackerman, in charge of the Bureau's laboratory at Bentonville, Ark., spent the last half of December in Washington, going over with officials of the Bureau the subject of his field investigations. He will return to Bentonville early in January.

Dr. B. A. Porter, in charge of the Bureau's laboratory at Vincennes, Ind., spent the latter part of December in Washington conferring with Bureau officials as to his plans for the coming season's work. He expects to remain in Washington for a considerable part of January.

GIPSY MOTH AND BROWN-TAIL MOTH INVESTIGATIONS

A. F. Burgess, Senior Entomologist, in Charge

On December 11, 1926, D. M. Rogers, Assistant in Charge of the gipsy moth quarantine and inspection work, resigned from the service. Mr. Rogers has been associated with gipsy moth work for many years, having been employed by the State of Massachusetts before entering the Federal Service. He was the first man appointed when the gipsy moth work was begun by the Bureau, July 1, 1906, and has had charge of quarantine and inspection work since 1913. Mr. and Mrs. Rogers have gone to California, where Mr. Rogers hopes to carry out some experiments in plant breeding, a subject in which he is much interested. In Mr. Rogers' retirement the Bureau of Entomology has lost the services of a capable and sincere official. His associates and many friends will miss his congenial personality and wish him success and Godspeed in his new enterprise.

Dr. J. N. Summers, Associate Entomologist in the Bureau of Entomology, who has been associated with the gipsy moth investigations since June, 1911, has been appointed to the position left vacant by the resignation of Mr. Rogers.

Henry H. Richardson, a graduate of the Massachusetts Agricultural College, has recently been appointed Junior Entomologist to fill a vacancy at the gipsy moth laboratory.

Dr. M. Kamal visited the gipsy moth laboratory on December 9 and 10. He has recently completed his studies in this country and is returning to Cairo, Egypt, where he will be employed by the Ministry of Agriculture, in the Division of Entomology.

Dr. Carl Heinrich, of the Taxonomic Division of the Bureau, spent a short time in the last part of November and the first part of December examining the lepidopterous collections at the gipsy moth laboratory.

A. F. Burgess, C. W. Collins, R. T. Webber, S. M. Bohanian, and D. F. Barnes, all employees of the Bureau of Entomology and connected with the gipsy moth investigations, attended the meetings of the American Association of Economic Entomologists at Philadelphia in the last week of December.

LIBRARY

Mabel Colcord, Librarian

NEW BOOKS

British museum (Nat. Hist.). Dept. of entomology.

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A synopsis of the families and genera of Nematoda, by H. A. Baylis and R. Daubney. 277 p. Printed by order of the Trustees, London, 1926.

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Omtrattting en desinsectie. 212 p., illus. J. Waltman, Delft, 1926.
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Sanitation in the United States. By Col. Weston P. Chamberlain. In the American expeditionary forces. By Lt. Col. Frank M. Weed. 1141 p., illus. Government printing office, Washington, D. C., 1926. (The medical department of the United States Army in the world war, v. 6.) Prepared under the direction of Maj. Gen. M. W. Ireland, Surgeon general. Fly control, W. P. Chamberlain, p. 293-304; Malaria control, G. R. Bascom, p. 305-348; Vermin infestation and delousing, Harry Plotz, p. 372-413; References, p. 411-413.
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Recherche des meilleures races de vers à soie (*Bombyx mori*) à introduire en Egypte et des croisements qui y auraient le plus de chances de succès. 202 p., illus. Occitania, E. H. Guitard, Paris & Toulouse, 1926.
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The corn borer, assassin of the corn field. Department of Live Stock Economics, International Live Stock Exposition, Union Stock Yards, Chicago, 1926. 20 p., illus., map.
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A revision of some of the North American species of Mydaidae. Boston, 1926. (Proc. Boston Soc. Nat. Hist., v. 38, No. 5, p. 131-145, pl. 3, October.)
- Johnson, W. H.
Cotton and its production; with an introduction by Sir Wyndham Dunstan and a foreword by Sir William Himburg. 536 p., maps. Macmillan, London, 1926. Insect pests of cotton, p. 471-523. Bibliography, p. 529-532.

Meyrick, Edward.

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